Certain information and statistics contained in this section have been extracted from a report by NERI commissioned by our Company titled "Research report on the development of the magnesium industry and the applications of magnesium metals" (鎂工業發展及金屬鎂產品應用研究報告). Data compiled by NERI is based on published information and interviews with companies, including our Company. For information on NERI, please refer to the sections headed "Other Information — N.E.U. Engineering & Research Institute Co., Ltd." and "Other Information — Consents and qualifications of experts or independent professional parties" in Appendix VII of this prospectus. No independent verification has been carried out in respect of information and statistics which are derived from publicly available official sources. The publicly available official sources from which information in this section has been derived include the following: IMA, CMA, Metal Bulletin, U.S. Geological Survey, and other broker research and, or industry research reports. While our Group, the Sponsor, the Sole Bookrunner, the Joint Lead Managers, the Underwriters, any of their respective directors, agents, employees, advisers or affiliates, or any person or party involved in the Share Offer have exercised reasonable care in compiling and reproducing such information and statistics, our Group cannot ensure the accuracy of official information and statistics and such information and statistics may not be consistent with other information compiled for our industry. In addition, our Group cannot ensure that more updated information or statistics have not been prepared or released by the relevant organisations or companies. You should not place undue reliance on any of official information and statistics contained in this section.

INTRODUCTION

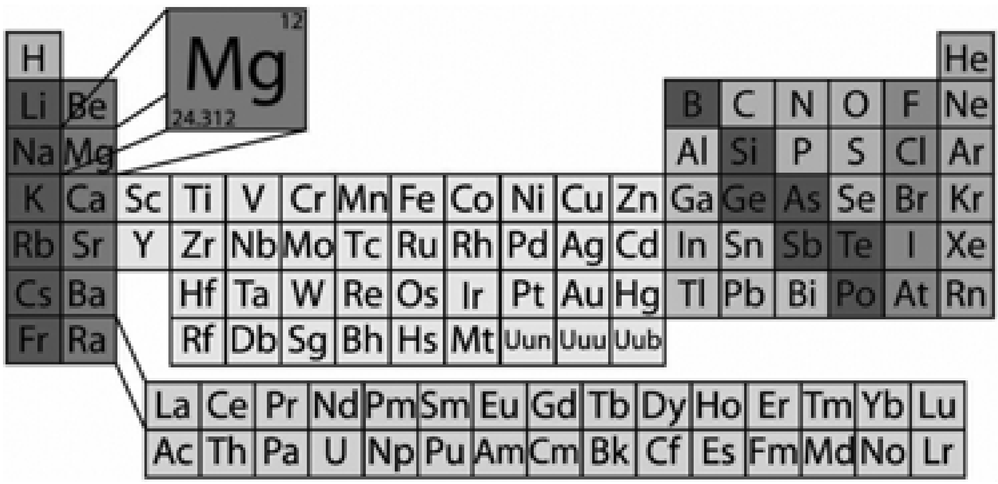
We commissioned NERI, an independent technical adviser, to conduct a detailed analysis of and to report on the global magnesium market and related industries and the application of magnesium.

Some of the information and statistics as contained in this section have been extracted from the report by NERI.

MAGNESIUM

Magnesium is a fairly strong, silvery-white and light-weight metal with two thirds the density of aluminium. The crystal structure for magnesium is dense hexagonal. The atomic number for magnesium is 12 and it belongs to group 2A of the periodic table. It can principally be found in magnesite, dolomite and carnallite.

Exhibit 1 — The periodic table of the elements



Magnesium is currently the third most commonly used engineering metal after steel and aluminium, and has many outstanding features, with good prospects of wide applications. There has been a significant growth in the application of magnesium alloys since the 1990s and many industrially developed countries in the world have been actively promoting the application of magnesium in various sectors including transportation, information technology, communication, consumer electronics and military industries. Along with the technological breakthrough in the magnesium production process, since 2000, global consumption of magnesium (primary magnesium metal) has been rapidly increasing at a rate of approximately 20% each year, which was unprecedented in engineering metal applications in the modern history, signifying an era of rapid magnesium alloy development and application.

GLOBAL MAGNESIUM INDUSTRY OVERVIEW

History and development of the magnesium industry

The history of the magnesium industry is relatively short compared to other metallurgy industries. The development of the magnesium industry can be broadly divided into three stages when three different methods of production were invented.

Magnesium sulphate and magnesium carbonate, being the compounds of magnesium, were discovered in the late 17th century. In the early 19th century, Sir Humphry Davy obtained magnesium mercuric alloy by electrolysis, and after expelling mercury through heating, obtained monomer magnesium. Later, A. Bussy tried to use potassium steam to reduce magnesium oxide and reduce magnesium chloride to obtain metal magnesium, and later using sodium to reduce molten magnesium oxide. As the reduction of magnesium compounds using sodium and potassium was very uneconomical, it was soon replaced by the electrolysis method.

In 1830, Faraday used electro-chemical method for the first time to obtain metal magnesium by electrolysis of molten magnesium chloride.

In 1852, Bunsen conducted more detailed studies in electrolysis in the laboratory, and further realized industrialization from experiments and researches, and established industrial electrolytic tank in 1885.

Detailed researches were made by various scientists on the impact of electrolyte, anode and cathode materials, additives and water, sulphates on the electrolysis process. In 1897, a scientist in the U.S. obtained the patent for the preparation of metal magnesium from electrolytic molten magnesium chloride and sodium chloride mixtures. In 1899, another scientist obtained the patents for the preparation of metal magnesium from electrolytic natural potassium carnallite. Accordingly, the method of producing metal magnesium from electrolytic molten chlorides had reached its initial scale, and industrial production of metal magnesium commenced in late 19th century.

Starting from the 1930's of the 20th century, metal thermal reduction method was being established and had attracted extensive attention.

In 1932, two scientists conducted researches on the reduction reaction of MgO by using Si-Al as the reducing agent.

In 1941, Professor L.M. Pidgeon established a testing plant in Ottawa, Canada, and succeeded in extracting magnesium metal by using silicon iron from dolomite. Thereafter, the Canadian government constructed a thermal magnesium plant with an annual output of 5,000 tonnes at the neighborhood of Hatley dolomite mine in Ontario, which commenced operation in 1942.

After the World War II, France commenced its researches in the production of magnesium metal by using electric furnace in 1949, and thereafter constructed an expanded testing furnace in 1950. In 1959, it constructed the first semi-industrial testing furnace with a daily production of 2.5 tonnes. Through four years of testing and researches and continuous production, it successfully established a semi-continuous silicon thermal magnesium plant with a production capacity of 4,500 tonnes per annum in 1969. In 1971, its production capacity was expanded to

9,000 tonnes per annum. The research and successful establishment of the semi-continuous silicon thermal magnesium method further promoted the technical advancement of the magnesium industry. The method had become one of the advanced methods in the modern magnesium industry.

Japan had adopted the Pidgeon Process and established Furukawa (古河) and Ube (宇部) magnesium plants. Due to energy problems, they were closed down eventually.

The global magnesium industry was closely related to the military industry at its early stage of development. It had experienced two rapid developments during the World War I and World War II. After the two world wars, the magnesium industry was largely scaled down. Since the 1960's, magnesium had gradually been applied to other general uses, and the global output of magnesium gradually increased. In the 1970's, the global annual output of magnesium was over 200,000 tonnes. In the 1980's, it was over 300,000 tonnes, growing to over 400,000 tonnes in the 1990's. At present, the global magnesium production level has reached approximately 700,000 tonnes per annum.

Global magnesium production

As shown in Exhibit 2 and Exhibit 3 below, since 2000, the global magnesium output has been increasing at an average rate of approximately 8% per annum. However, based on the changes in ranking of the world magnesium-producing countries, it can be seen that the world magnesium industry production landscape is undergoing important changes.

In the early 1990's, the primary magnesium producers in the world were from North America, Russia and Norway. In the late 1990's, due to rising labour and energy costs, some of the major magnesium producers in these countries were forced to scale down their operations and as a result, the global production of magnesium was reduced by 40,000 tonnes between 2001 and 2003. At the same time, the magnesium production output and export scale of Asian countries led by the PRC is expanding rapidly while the magnesium enterprises in North America and Europe were forced to close down their businesses or substantially reduce their magnesium output. An increasing number of magnesium plants had emerged in the PRC to meet the global demand for primary magnesium. In 2004, the annual production of magnesium in the PRC was approximately 450,000 tonnes, representing approximately 70% of the global demand and making the PRC the largest magnesium producing country for the first time.

From 2001 to 2004, Northwest Alloys of America, Pechiney of France, Noranda Magnola of Canada and AMC of Australia ceased production and were in turn declared bankrupt. The magnesium production capacity in western countries have dropped by 0.1954 million tonnes since 2001.

In 2005, according to the statistics compiled by IMA, there were only 9 countries or major areas in the world producing magnesium. In 2007, Yara of Norway announced to close down its Becancour primary magnesium smelting plant with an annual production capacity of 51,000 tonnes in Quebec, Canada. Avisma of Russia also announced that its primary magnesium output would decrease by more than 10,000 tonnes in 2007. Magnesium companies such as America Magnesium Company and Lima of Brazil maintained production in the period of difficulties. Accordingly, the demand for magnesium is effectively satisfied by magnesium exports from the PRC.

Pursuant to industry statistics compiled by IMA and CMA, the global primary magnesium production trend (by country) for the years 2000 to 2007 was as follows:

Exhibit 2: Global primary magnesium production trend

Unit: '000 tonnes

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
U.S.A	74(b)	43(b)	35(b)	43(b)	43(b)	43(a)	43(a)	45(e)
Brazil	9(b)	9(b)	7(b)	6(b)	11(b)	6(a)	6(a)	7(e)
Canada	55(b)	65(b)	86(b)	50(b)	55(b)	54(a)	50(a)	—
The PRC	218(b)	195(b)	232(b)	354(c)	450(d)	470(d)	526(d)	659(e)
France	17(b)	7(b)	—	—	—	—	—	—
Israel	2(b)	30(b)	34(b)	30(b)	33(b)	28(a)	28(a)	33(e)
Kazakhstan	10(b)	10(b)	10(b)	14(b)	14(b)	20(a)	20(a)	—
Norway	50(b)	35(b)	10(b)	—	—	—	—	—
Russia	40(b)	50(b)	52(b)	45(b)	45(b)	45(a)	50(a)	30(e)
Ukraine	2(b)	2(b)	—	—	—	2(a)	2(a)	—
Serbia	2(b)	2(b)	2(b)	2(b)	4(b)	2(a)	1(a)	—
Total	479	448	468	544	655	670	726	774
Annual Change		-6%	+4%	+16%	+20%	+2%	+8%	+7%

Sources:

(a) *U. S. Geological Survey 2005-2007 / www.intlmag.org/statistics.html*

(b) *Mining Journal Annual Review for 2004 and MAGNESIUM by Robert E. Brown Magnesium Monthly Review / www.intlmag.org/statistics.html*

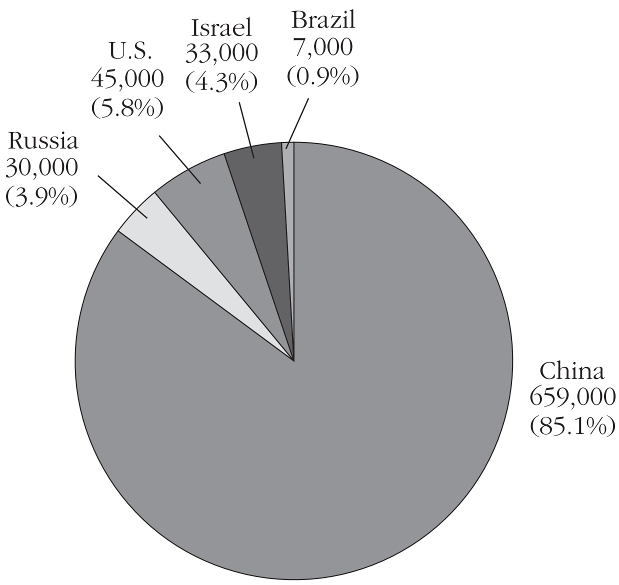
(c) *Mining Journal Annual Review and CMA / www.intlmag.org/statistics.html*

(d) *CMA / www.intlmag.org/statistics.html*

(e) *CMA*

As shown in Exhibit 3 below, the total production of primary magnesium in the world in 2007 was approximately 774,000 tonnes, of which the PRC accounted for approximately 659,000 tonnes of the total global primary magnesium output, while the U.S. has produced approximately 45,000 tonnes of primary magnesium. The other countries which are major primary magnesium producing countries are Russia, Israel and Brazil, each producing 30,000 tonnes, 33,000 tonnes and 7,000 tonnes per annum respectively. The PRC and Russia are the only primary magnesium producing countries in Asia.

Exhibit 3: Primary magnesium producing countries in 2007 *(in tonnes)*



(Source: CMA)

MAGNESIUM PRICE

Based on the Metal Bulletin published by the Metals, Minerals and Mining Division of Euromoney Institutional Investor PLC, the magnesium prices (in US$ per tonne) for the period of January of 2004 to October of 2008 were as follows:

(US$/tonne)

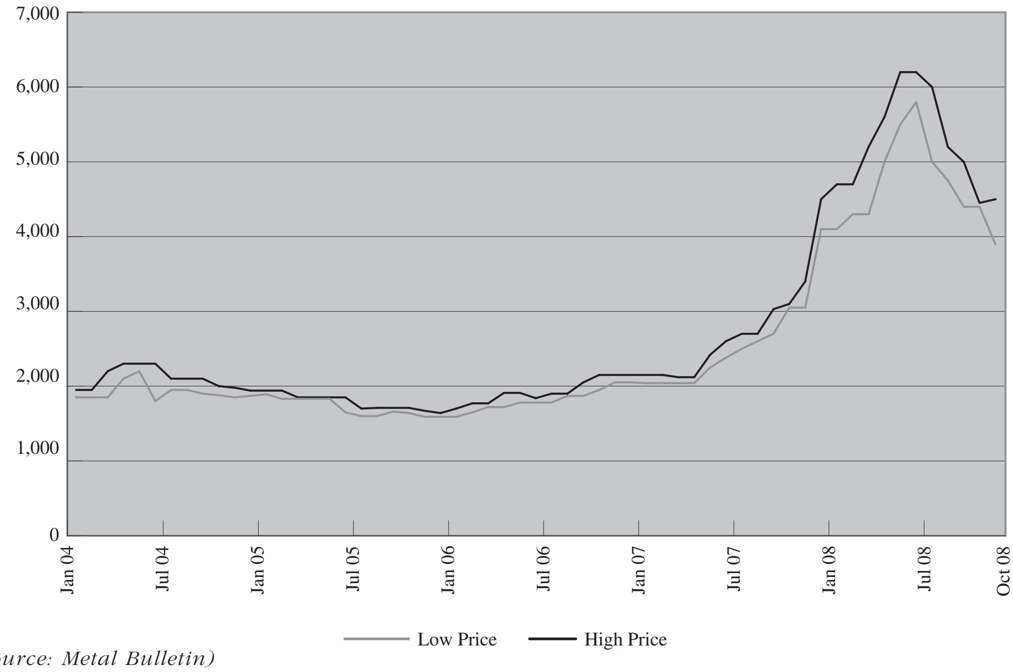
Month/Year	2004		2005		2006		2007		2008	
	low	high	low	high	low	high	low	high	low	high
January	1850	1950	1890	1940	1590	1700	2040	2150	4100	4700
February	1850	1950	1830	1940	1650	1770	2040	2150	4300	4700
March	1850	2200	1830	1850	1720	1770	2040	2120	4300	5200
April	2100	2300	1830	1850	1720	1910	2040	2120	5000	5600
May	2200	2300	1830	1850	1780	1910	2250	2420	5500	6200
June	1800	2300	1650	1850	1780	1840	2380	2600	5800	6200
July	1950	2100	1600	1700	1780	1900	2500	2700	5000	6000
August	1950	2100	1600	1710	1870	1900	2600	2700	4750	5200
September	1900	2100	1660	1710	1870	2050	2700	3030	4400	5000
October	1880	2000	1640	1710	1950	2150	3050	3100	3900	4500
November*	1850	1980	1590	1670	2050	2150	3050	3400	—	—
December	1870	1940	1590	1640	2050	2150	4100	4500	—	—

(Source: Metal Bulletin - Rotterdam Warehouse Average Prices (magnesium content>99.8) between 2004 and 2008)

* *According to Metal Bulletin, the latest available prices of 99.8% magnesium as of 14th November, 2008 were US$3,200 to US$3,400*

Exhibit 4 is a diagrammatic representation of the trend of magnesium prices between January 2004 and October 2008:

Exhibit 4: World magnesium price *(US$ per tonne)*



(Source: Metal Bulletin)

MAGNESIUM INDUSTRY IN MALAYSIA

To the best knowledge of our Directors and NERI, there is no major magnesium producer in other countries in the South East Asia as the world's primary magnesium production at present is dominated by China, Russia, United States, Israel and Brazil, which together accounted for 100% of the total world magnesium production in 2007 according to IMA. As confirmed by MIDA on 19th February, 2008, CVM will be the first magnesium smelting plant in Malaysia. Accordingly, although there are large reserves of limestone resources in Malaysia, there is no publicly available industry information relating to, amongst other things, magnesium production in Malaysia. As the PRC is currently the largest magnesium producer in the world, accounting for over 80% of the worldwide magnesium output and having significant influence over the supply and market prices of magnesium globally, our Directors believe that a more comprehensive review of the trend and development of the PRC magnesium industry as set out below in this prospectus is appropriate and necessary.

MAGNESIUM INDUSTRY IN THE PRC

The PRC is currently the largest primary magnesium producing country in the world. In 2007, the PRC's primary magnesium output was approximately 659,000 tonnes, representing an increase of 202% over 2000. There are more than 100 primary magnesium-producing enterprises in the PRC, 10 of which have an annual production capability of more than 10,000 tonnes each with a total production capability of 977,200 tonnes. The PRC is not only a large primary magnesium producing country in the world, it also has a strong research and development team with the largest number of researchers. It has a huge potential market and will play an important role in the development and continued application of magnesium in the global magnesium market.

History and development of the PRC magnesium industry

The PRC magnesium industry has a relatively short history. In 1957, the magnesium refinery of Fushun Aluminium Plant prepared magnesium chloride by the adoption of chlorination of magnesites, and electrolysis of magnesium chloride to extract metal magnesium. Later, it had undergone numerous reforms. The metal magnesium produced by Zunyi Titanium Plant and Fushun Aluminium Plant was mainly used in the reduction of titanium spongy.

The PRC had started its researches in the thermal magnesium production process since the 1960's, and the comparatively successful examples were the semi-industrial experiments conducted at the Nanjing Dolomite Mine. In the 1980's, Hubei Tongshan Magnesium Plant, the first thermal magnesium plant in the PRC designed by Mr. Gao Qi Fu (one of our executive Directors who was then a senior engineer of SAMI) was put into operation, symbolizing the industrial application stage of the Pidgeon Process of magnesium smelting in the PRC.

Thermal magnesium smelting in the PRC had experienced different stages of development with the fluctuations in market prices.

In terms of production volume, the development of the magnesium industry could be divided into three stages: (i) 100 tonnes to thousands of tonnes in the 1980's; (ii) thousands of tonnes to 10,000 tonnes in the 1990's; and (iii) over 10,000 tonnes since 2000.

In terms of the types of equipment and fuel used, the development of the magnesium industry could be divided into three stages: (i) small rotary kiln, compartment reduction furnace using natural gas as fuel; (ii) small rotary kiln, twin layer compartment reduction furnace using coal and gas as fuel; (iii) highly automatic control and high environmental friendly large rotary kiln, pre-heating twin layer double compartment reduction furnace using gas as fuel.

Magnesium production in the PRC

Exhibit 5 — Magnesium output in the PRC and its proportion to the global output

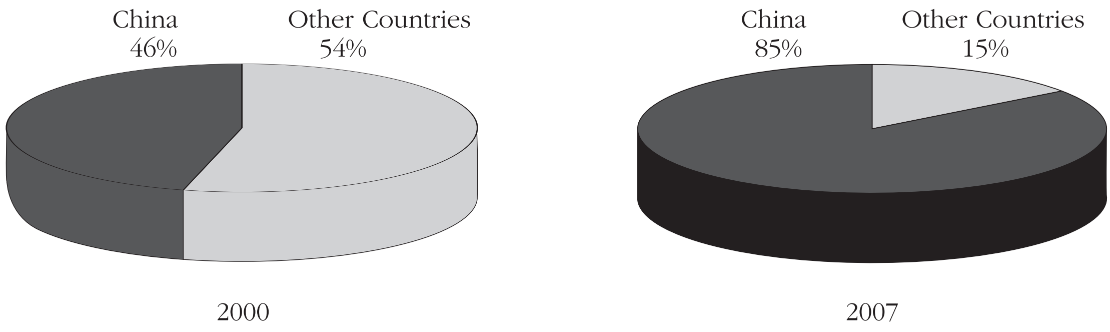
(Unit '000 tonnes)

Year	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Global output (a)	438	458	479	448	468	544	655	670	726	774
The PRC's output (b)	123	157	218	195	232	354	450	470	526	659
The proportion of the PRC output to global output (b)/(a) (%)	28.1	34.3	45.5	43.5	49.6	65.1	68.7	70.1	72.5	85.1

(Source: IMA and CMA)

As shown in Exhibits 5 and 6, the proportion of magnesium output in the PRC to the total global output is rising considerably over the years. Such proportion has risen from approximately 46% in 2000 to approximately 85% in 2007.

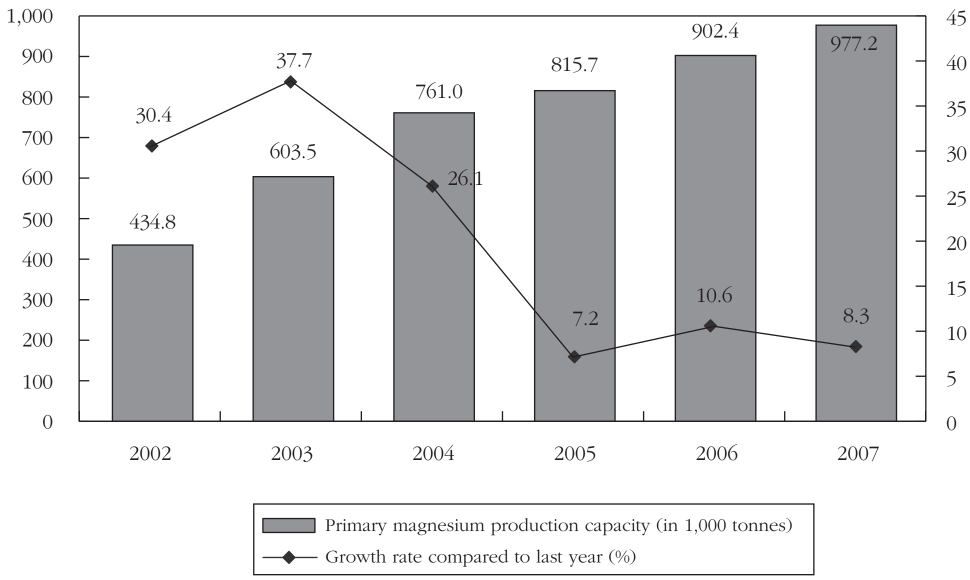
Exhibit 6 — Global market share of the PRC magnesium industry



(Source: IMA and CMA)

In the recent years, the PRC magnesium industry achieved a significant advancement in terms of magnesium smelting production capacity, output, export volume, domestic consumption volume and economic efficiency. Since 2000, the PRC magnesium output ranked number one in the world for eight consecutive years. In addition, there was a marked improvement in the magnesium consumption per tonne indicator which was decreased by one third in 2007 compared to five years ago. With the structural effects of the changes in the energy market and the corresponding changes in the structures and complexity of magnesium products, companies in the magnesium market are constantly upgrading the technology of magnesium production, the smelting process and equipment. Both the PRC magnesium exports market and the domestic consumption are expected to continue to experience a robust growth.

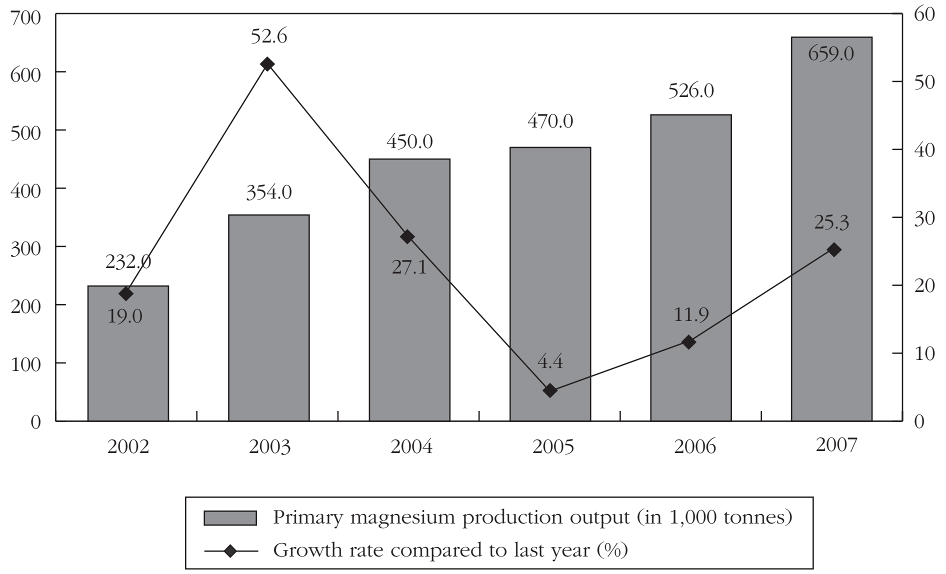
Exhibit 7 — The PRC primary magnesium production capacity and its growth rate from 2002 to 2007



(Source: 2007 General Meeting of Magnesium Industry in the PRC (Selected Articles) and CMA)

The total primary magnesium production capacity in the PRC was 977,200 tonnes in 2007, representing an increase of approximately 125% over 2002.

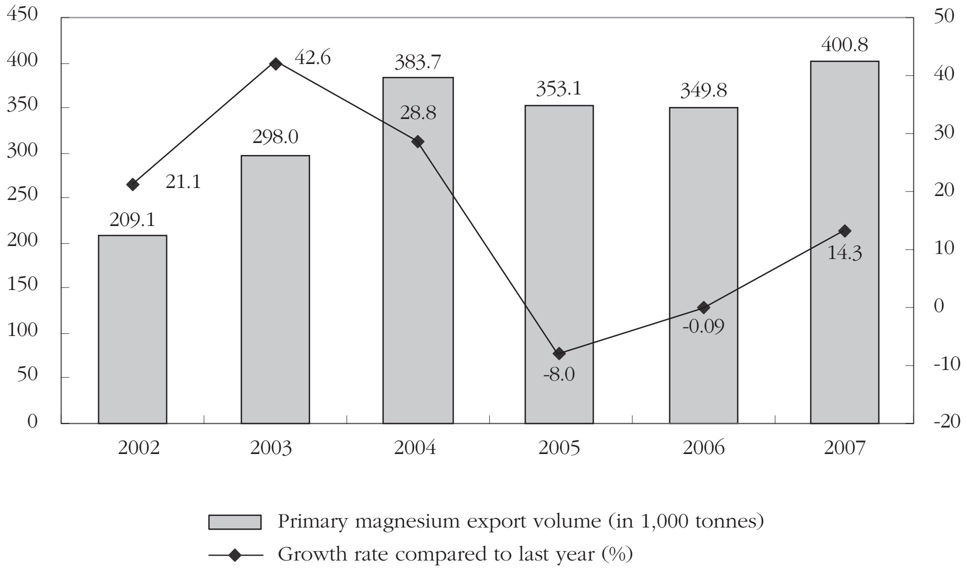
Exhibit 8 — The PRC primary magnesium production output and its growth rate from 2002 to 2007



(Source: IMA and CMA)

The production output of primary magnesium in the PRC was approximately 659,000 tonnes in 2007, representing an increase of approximately 184% over 2002.

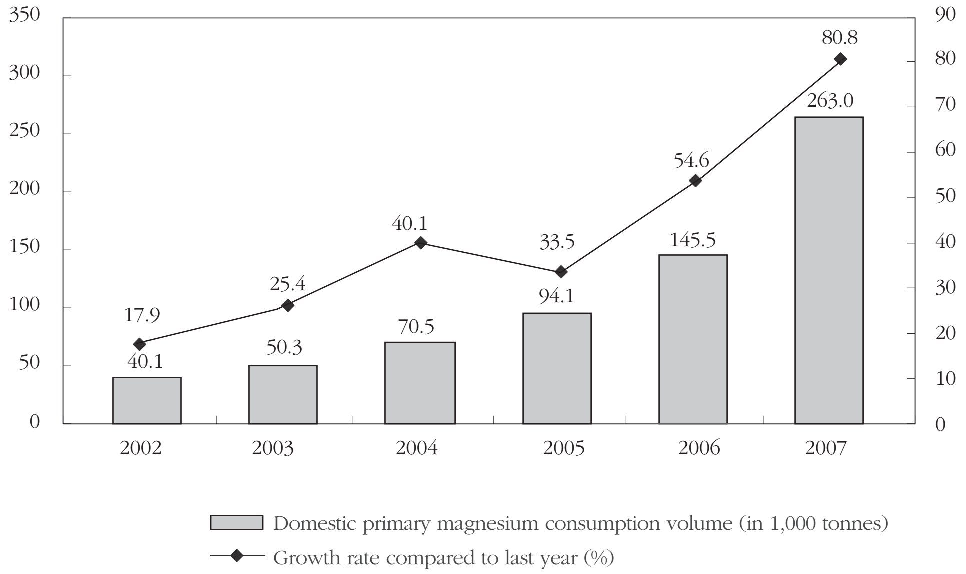
Exhibit 9 — The PRC primary magnesium product export volume and its growth rate from 2002 to 2007



(Source: 2007 General Meeting of Magnesium Industry in the PRC (Selected Articles) and CMA)

The primary magnesium product export volume in the PRC was approximately 400,800 tonnes in 2007, representing an increase of approximately 92% over 2002.

Exhibit 10 — The PRC domestic magnesium consumption volume and its growth rate from 2002 to 2007



(Source: 2007 General Meeting of Magnesium Industry in the PRC (Selected Articles) and CMA)

With the booming PRC economy, the consumption of magnesium in the PRC has witnessed substantial increases in the recent years at a faster rate than the growth rate in primary magnesium production capacity and output in the PRC from 2004 to 2007.

Exhibits 11 and 12 below show the composition of the consumption of primary magnesium for different usages in the PRC from 2000 to 2007. The proportion of the usage of magnesium in die-casting parts to the total magnesium consumption has increased significantly from approximately 16% in 2000 to approximately 35% in 2007 and has exceeded the proportion in relation to the usage of magnesium in aluminium alloys (which in turn has decreased from approximately 40% in 2000 to approximately 25% in 2007).

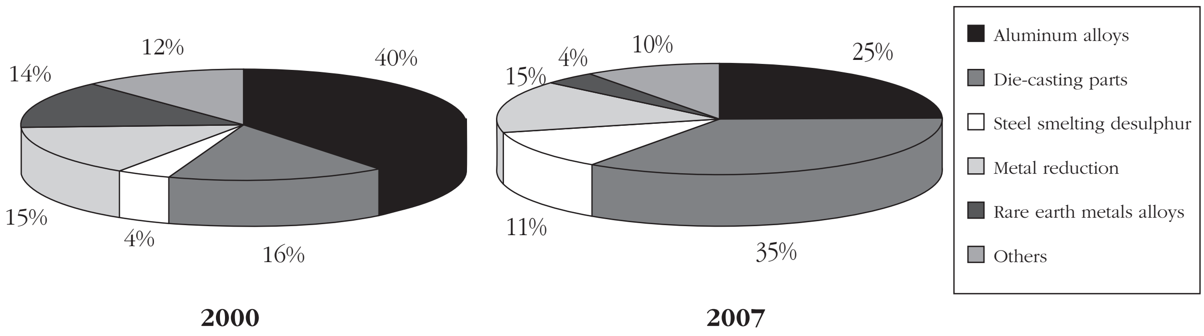
Exhibit 11 — The PRC magnesium consumption structure from 2000 to 2007

(Unit: '000 tonnes)

	2000	2001	2002	2003	2004	2005	2006	2007
Aluminium alloys	10.1	13.5	17.4	20.1	23.0	30.1	41.0	65.0
Die-casting parts	4.0	4.7	6.1	10.2	18.0	25.9	51.0	92.0
Steel smelting desulphur	1.1	4.5	5.0	8.0	15.0	19.2	28.0	30.0
Metal reduction	3.7	4.0	3.7	3.0	5.0	6.5	7.5	40.0
Rare earth metals alloys	3.5	3.7	3.8	4.0	4.5	6.0	7.0	10.0
Other	3.1	3.5	4.1	5.0	5.0	6.4	11.0	26.0
Total	25.5	34.0	40.1	50.3	70.5	94.1	145.5	263.0
Year-on-year increase %	9.9	33.3	17.9	25.4	40.1	33.5	54.6	80.8

Source: 2007 General Meeting of Magnesium Industry in the PRC (selected Articles) and CMA

Exhibit 12 — The PRC magnesium consumption structure from 2000 to 2007



Source: 2007 General Meeting of Magnesium Industry in the PRC (selected Articles) and CMA

Review on the trend of PRC magnesium prices

At the beginning of 2004, the price of magnesium was approximately US$1,900 per tonne and maintained around US$2,000 per tonne throughout 2004 until the second half of 2005 when the price dropped by approximately 25% to US$1,500.

Benefiting from the prosperous non-ferrous metals market, the market demand for metals such as copper, nickel and zinc was at record high in 2006. There was a satisfactory performance in the magnesium market, with an overall price increase of approximately 30% over the year.

At the beginning of 2006, magnesium ingot price was approximately US$1,500 per tonne, rising rapidly to approximately US$1,880 per tonne in the middle of April with an average rate of increase of approximately 25% within the period. After April 2006, there was an adjustment for approximately three months in the PRC magnesium market, with prices broadly fluctuating at approximately US$1,800 per tonne. From the beginning of September, magnesium prices rose again rapidly and reached approximately US$2,100 per tonne in the middle of October. Since the end of November, the prices of magnesium ingots were fluctuating at approximately US$1,950 per tonne. Due to the strong economic performance of China in 2007 and the first half of 2008, since the beginning of 2007, magnesium ingot prices rose all the way up to a record high of approximately US$5,500 to US$6,200 per tonne in May 2008. The global economic downturn in the second half of 2008 eventually led to an adjustment of more than 40% to magnesium prices which were approximately US$3,200 to US$3,400 per tonne on 14th November, 2008. Please refer to the paragraph headed "Recent Global Economic Crisis" in this section for the views of the Directors on the prospects of the magnesium industry amid the recent financial crisis in the world.

According to NERI, the overall strong performance of the PRC magnesium markets and the rising trend of magnesium prices since 2007 are attributable to the following reasons:

- since early 2007, the domestic demand for magnesium products in the PRC has been strong. Approximately 50% of the total output is for domestic consumption, as compared to approximately 20% to 30% previously. The ratio of domestic sales to foreign sales for certain large magnesium enterprises was as high as 9 to 1. At the same time, the performance of global magnesium market has begun to recover and foreign consumers have obviously increased their demand for magnesium products gradually

- due to environmental protection and capital concerns, many small scale magnesium plants exited from the market, causing a temporary decrease in the supply market of magnesium ingots in the PRC and accordingly causing an increase in magnesium prices

- the expected rise in coal prices have, to a certain extent, explained for the increase in magnesium prices

HISTORICAL PRICES OF RAW MATERIALS OF MAGNESIUM INGOTS

According to the information supplied by two PRC suppliers, which are Independent Third Parties, the prices of the major raw materials, ferrosilicon and flux, to be consumed by us in the Pidgeon Process, during the Track Record Period were as follows:

	Unit	2005	2006	2007	May 2008	CAGR[1]
Ferrosilicon[2]	USD/tonne	683	734	749	807	5.7%
Flux[2]	UDS/tonne	611	654	683	790	8.9%

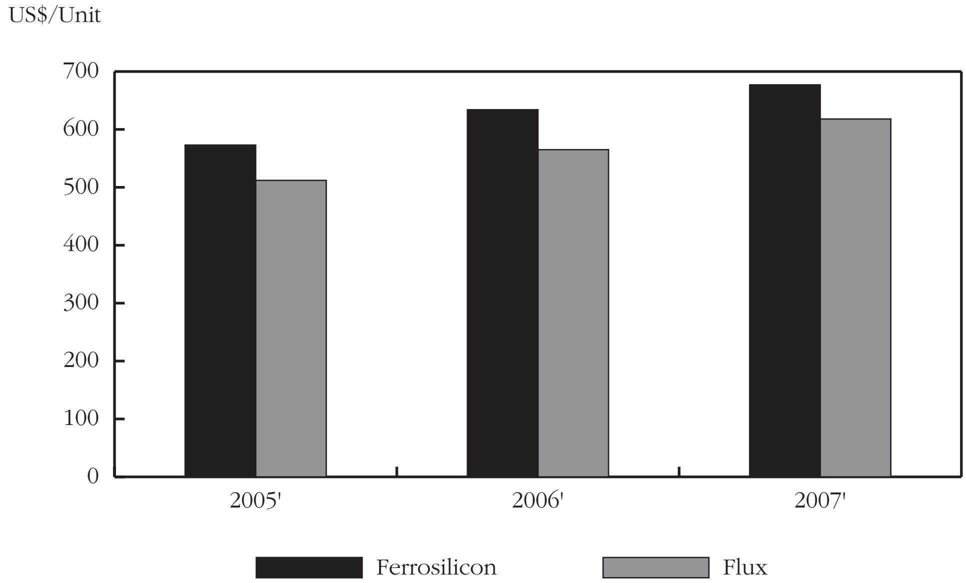
(Source: Ningxia Tia Feng Magnesium Company (寧夏泰豐鎂業有限公司) and Qinghai Normoon Technology Co. Ltd. (青海北辰科技有限責任公司), both are Independent Third Parties)

Notes:

1. Compound annual growth rate from 2005 to 2007
2. Including a PRC tax of 17% and taking into account the movements in the exchange rates of RMB against USD during the Track Record Period

Exhibit 13 is a chart showing the trend of the prices of ferrosilicon and flux during the Track Record Period:

Exhibit 13: Prices of ferrosilicon and flux *(US$ per unit)*



HISTORICAL COSTS OF ENERGY

Water and natural gas

According to the Lembaga Air Perak (Water Department of Perak), a statutory body established under the Perak State Enactment 12 of 1988 and Gas Malaysia, a licensed gas utility company in Malaysia, the historical costs of water and natural gas, respectively, to be consumed by us in the Pidgeon Process during the Track Record Period were as follows:

	Unit	2005	2006	2007	May 2008	CAGR[1]
Water	USD/m^3	0.37	0.38	0.41	0.44	7.4%
Natural Gas	USD/m^3	0.13	0.13	0.14	0.25	31.1%

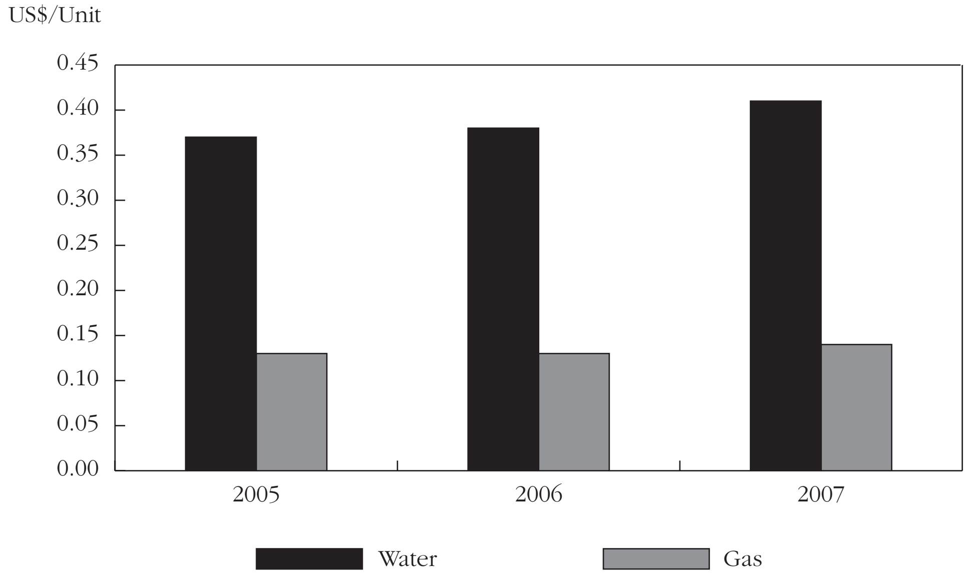
Sources:

1. Water - Ministry of Energy, Water and Communications of Malaysia

2. Natural Gas - Gas Malaysia

Exhibit 14 is a chart showing the trend of the costs of water and natural gas during the Track Record Period.

Exhibit 14: Costs of water and natural gas (US$ per unit)



Electricity

According to Tenaga Nasional Berhad, the largest electricity utility in Malaysia, the electricity charges in Perak are as follows:

Electricity charges	Unit	Since 1st May, 1997	Since 1st June, 2006	Since 1st July, 2008
Unit price of electricity during the peak period	US$/kWh	0.06	0.07	0.08
Unit price of electricity during the off-peak period	US$/kWh	0.04	0.04	0.05
Special charges on the amount of electricity consumed during Exceeded Intervals (defined below)#	US$/kW	6.2	6.97	8.8
Minimum monthly electricity charge	US$	142.86	171.43	171.43

Source: Tenaga Nasional Berhad

For each kilowatt of maximum demand per month during the peak period.

MAGNESIUM RESERVES IN MALAYSIA

According to UKM, one of the independent technical advisers of the Company, there are large reserves of limestone resources with potential for development abound in the states of Perak, Kedah, Kelantan, Pahang and Perlis in Malaysia. Nearly all limestone in Peninsular Malaysia is of high purity carbonate (> 97% combined $CaCO_3$ and $MgCO_3$). Large reserves of high-calcium limestone (> 95% $CaCO_3$) have been delineated in Perak and Kelantan. High-calcium limestone has numerous uses as a raw material in industries. Deposits of high-magnesium dolomite which contains more than 40% $MgCO_3$ have been found in Perak and Kedah. This can be used for high-magnesium lime, magnesium compounds, refractories and dead-burned dolomite.

The limestone hills in the Kinta Valley, Perak extend from Gunung Temelang near Tanjung Rambutan in the north to Gunung Gajah, near Kuala Dipang to the south, a distance of about 30 km. Available data showed that nearly all the limestone hill in the Kinta Valley are made up of high-purity carbonate (> 97% combined $CaCO_3$ and $MgCO_3$) rock. Deposits of dolomite (high-magnesium dolomite) are found in Gunung Keroh, Gunung Karang Besar, Gunung Layang-Layang, Gunung Tambun, Gunung Bercham and Gunung Ginting.

APPLICATIONS OF MAGNESIUM

Magnesium is used principally as a major component of aluminium and die-casting alloys to enhance the mechanical strength, reduce the weight and improve the mechanical processing properties. It is also used as the refractory material in furnace linings for producing iron, steel and non-ferrous metals. The favourable characteristics of magnesium, namely low density, high strength, strong abilities of vibration resistance and noise reduction, excellent capability of forming in a liquid form and radiation insulation enable it to be recognised as an environmental friendly engineering metal in the 21st century. Hence, magnesium alloys are popular in the automobile industry as a means of reducing weight, increasing fuel efficiency and reducing greenhouse gas emissions. In 2007, the annual world magnesium output reached 774,000 tonnes, and the application of magnesium in the transportation industry including automobiles is increasing at an annual rate of approximately 15% to 20%, remarkably higher than other metals.

Magnesium alloys are now being extensively applied in military and civil sectors, including aeronautics and aviation, navigation, communication, medical, broadcasting television industries, audio and video equipment, micro electronics and optical instruments. Magnesium alloys can also be used in automobiles, motorcycles, electric tools, wind power tools, home appliances, mobile phones, computers and electronic products.

Magnesium alloys have the following characteristics:

- light weight — the density of magnesium is 1.74 g/cm^3, which is two thirds of aluminium, and one fourths of steel;
- higher strength — magnesium alloys have higher specific strength relative to aluminium alloys;
- strong damping capacity — magnesium alloys can effectively absorb shock waves, which is advantageous for reducing vibrations and noises;
- durability — magnesium alloys can be preserved for a long time under temperature below 100°C and are not easily distorted;
- environmental friendliness — magnesium alloys can be 100% recycled, and magnesium alloys are non-toxic, which are in compliance with environmental protection requirements;
- strong radiation resistance — magnesium alloys are non-magnetic. Its electro-magnetic shielding is better than non-electrolytic electroplated plastics and therefore is more suitable for producing products such as external cases of mobile phones;
- better heat conductivity — magnesium alloys can be used as radiating fins and casing materials;
- low temperature — magnesium alloys can be used under extreme temperature of as low as -190°C. The melting point of magnesium alloys is lower than that of aluminium alloys;
- good mechanical features and stronger shaping ability — magnesium alloys have excellent high-precision cutting and processing features and pressing and die-casting production rates which allows the production and pressing of more sophisticated die-casting products with a wider variety of shapes and features. The minimum wall thickness of pressed parts can be as low as 0.5 mm.

(Source: 2007 General Meeting of Magnesium Industry in the PRC (Selected Articles))

Automobile industry

Magnesium alloys are widely applied in automobiles. The increasing needs for enhanced safety and electronic features in automobiles have resulted in the increase of weight of automobiles. Between 1990 and 2002, the average weight of sedans had increased from 1.5 tonnes to 2.2 tonnes. At the same time, it has been a growing trend for governments in different parts of the world to regulate the level of fuel consumption and emissions with a view to controlling air pollution. The reduction of the weight of automobiles has become a major challenge faced by automobile manufacturers and research institutes and the application of magnesium alloys has accordingly come into play. Magnesium alloys not only serve to reduce the weight of automobiles, but have also enhanced the anti-collision features of automobiles because magnesium alloys are of greater strength than other types of metal.

Approximately 70% to 80% of the application of magnesium alloys die-casting parts was represented by light weight automobile spare parts. Since 1990's, the market of automobile magnesium alloys spare parts has increased at an annual rate of 20%, 35% in the North America and 60% in Europe. The global die-casting magnesium alloys spare parts output was more than 200,000 tonnes in 2006, most of which is used for automobile spare parts which the proportion was as high as 74%. It is expected that the magnesium alloys usage volume will exceed 100 kg per car by 2010, and Ford expects even more than 122 kg per car, while the volume of usage of magnesium alloys in the automobile industry globally will increase up to 5000kt per annum. At present, enterprises in the automobile industry around the world (excluding the PRC) have applied magnesium alloys in more than 100 types of die-casting spare parts, which has become the major driving force in the growth of the application of magnesium alloys.

Many magnesium die-casting spare parts composed of magnesium alloys are used in automobiles. For example, die-casting magnesium car instrument panels have already been in mass production since mid 1990's in the 20th century. The weight of the first generation parts was approximately 8 kg, with wall thickness less than 4 mm. Wall thickness and weight of subsequent generations of the instrument panels were further reduced, with weight of approximately 4.5 kg, and wall thickness of approximately 3 mm, yet still maintaining the high anti-collision, vibration-proof and noise reducing features. Compared to steel instrument panels, magnesium instrument panels have the advantages of reducing weight by approximately 50%, with less welding points and reduction of noise level.

Apart from car instrument panels, many other car spare parts such as manual gearbox, four-wheel drive transfer case and cylinder cover, gear housing, gear housing cover found in the power transmission system are mostly made of magnesium alloys. Due to the lower level of energy required, the weight of the gearbox can be reduced by approximately 25% compared to similar gearboxes made of aluminium alloys. The North America has been producing magnesium transfer case for over 20 years, and approximately 40% of the North American transfer case markets are made of magnesium alloys.

Looking forward, the automobile industry offers attractive prospects for the application of magnesium alloys.

3C electronic industry

There is also a huge potential market for the application of magnesium alloys in the electronic industry and the communications industry. In recent years, the electronic industry enjoys a rapid development. The development of digital technology also leads to the introduction of different types of digital electronic products. Electronic elements are increasingly integrated and modernised, as evidenced by the rapid changes in technology in relation to portable computers, digital cameras and mobile phones.

Currently, there is already a large number of manufacturers in Japan using magnesium alloys as materials for manufacturing the casing for electronic products, and there have been some enterprises specially engaged in the production of magnesium alloys parts for 3C products in the PRC, such as Foxconn Technology and Shanghai Ziyan, etc. With the rapid development in the electronic information industry and the manufacturing sector in the PRC, the processing scale for magnesium alloys is expected to be increasing. Enterprises in Taiwan, Hong Kong and Singapore will continue to transfer their production bases for magnesium alloys related 3C products to the Pearl River Delta and Yangtsze River Delta, forming a comparatively concentrated industrial cluster.

The light weight and vibration absorption performances of magnesium alloys are the major reasons for its application in electric-driven and wind-driven tools. Currently, several leading global electric-driven and wind-driven tools manufacturers are very keen in using magnesium alloys in their manufacturing processes. The well-known manufacturers adopting magnesium alloys in their products include, amongst other things, Hitachi and Makita of Japan, Black&Decker of the U.S. and Bosch of Germany, all having factories in the PRC. Amongst the electric-driven tools manufacturers, those in Zhejiang and Jiangsu provinces using magnesium alloys to produce casing are also very popular. The relevant products are the casing for electric drill, electric hammer, cutting machine, grinding machine, vibrating machine, electric breaker, polishing machine, sanding machine and electric planer, etc.

FUTURE OUTLOOK OF THE MAGNESIUM INDUSTRY

The magnesium market will continue to grow due to the increasing use of magnesium as a reducing agent or as an additive.

Magnesium as a reducing agent

As magnesium is a good catalyst for composition containing halogen, magnesium is an important reducing agent in the production of many metals, such as titanium, zirconia, hafnium, uranium and plutonium. At present, the use of magnesium as a reducing agent in the production of these metal remains limited. Magnesium is mainly used as a reducing agent of titanium spongy.

International output of titanium spongy reduced from 78.45kt in 2001 to 66kt in 2003 due to the impact of the 11th September incident in the U.S.. With the rapid growth of the international aviation market since 2004, the global production of titanium spongy increased by 27% in 2004 as compared with that in 2003. In 2007, China's titanium spongy output was 45,200 tonnes and the global titanium spongy output reached 166,400 tonnes.

Exhibit 15 — Output of titanium spongy for major producing countries in the recent years:

(Unit: tonnes)

Country/Year	**2003**	**2004**	**2005**	**2006**	**2007[1]**
Russia	23,000	23,000	29,000	32,000	32,000
Japan	18,900	23,100	30,800	37,800	39,000
Kazahkstan	12,500	16,500	19,000	23,000	25,000
Total	54,400	62,600	78,800	92,800	96,000
Annual Growth Rate (%)	—	15.1	25.9	17.8	3.45

Sources: U.S. Geological Survey, Mineral Commodity Summaries

1. Estimated value

Driven by the strong demands, prices of international titanium spongy also grew significantly. International retail price of titanium spongy continued to increase from approximately US$5.5/kg in early 2004 to approximately US$33/kg in the second half of 2007, signifying an increase of over 500%, which was more than double of the international historical high. Over 70% of the international titanium spongy transactions are conducted under long-term contracts. The contracted prices of international titanium spongy grew from US$6/kg prior to 2004 to US$14/kg in 2007, representing an increase of over 100%.

In 2006, the total global production of titanium spongy was 125,800 tonnes, of which the PRC accounted for approximately 14%. In 2007, the total global production of titanium spongy was 166,400 tonnes, of which the PRC accounted for approximately 27%. On average, approximately 0.3 tonne of magnesium is consumed in producing a tonne of titanium spongy. On this basis, there will be an annual consumption of approximately 37,700 tonnes of magnesium for the purpose of producing titanium spongy.

As titanium is the major raw material in navigation, aviation, military and antiseptic products, its market prospect is promising. The demand for titanium is expected to continue to grow. Hence, the use of magnesium in producing titanium spongy will increase correspondingly.

Magnesium as an additive

Magnesium as an additive is mainly used for the production of aluminium alloys. Since the introduction of aluminium refining process by way of electrolysis, the production and consumption of aluminium had been increasing rapidly. In particular, in the recent years, as a result of the improvement in aluminium refining methods and process and the continued development of the energy market, the aluminium industry has witnessed a significant growth, as evidenced by the increase in the global supply of primary aluminium from approximately 16.5 million tonnes in 1980 to approximately 24 million tonnes in 2001 and a further increase to approximately 33.7 million tonnes in 2006. It is anticipated that by 2010, the global supply of primary aluminium will exceed 40 million tonnes per year.

At present, the PRC, the U.S., Russia, Canada, Australia, Brazil and Norway are the main producing countries of primary aluminium in the world. The PRC remains as the biggest aluminium output producer in the world since 2001.

Since 2004, with the gradual recovery of the economies of the major western countries and in particular the rapid development of the PRC economy, the global primary aluminium consumption and production recorded an unprecedented rapid growth over that of the last decade. Since December 2005, three months aluminium futures on the London Metal Exchange (LME) exceeded US$2,000/tonne, and in May 2006, the maximum price had exceeded US$3,000/tonne.

In 2006, the global output of primary aluminium was approximately 33.97 million tonnes, and consumption was approximately 34.33 million tonnes, with a shortfall in the market supply of approximately 0.36 million tonnes. The table below sets out the changes in the global demand and supply of primary aluminium in the recent years.

Exhibit 16 — Global supply and demand of primary aluminium

10,000 tonnes/Year	**2004**	**2005**	**2006**	**2007 (forecast)**	**Growth from 2006 to 2007 (%)**
Supply	2,989	3,193	3,397	3,820	12.5%
Demand	3,019	3,187	3,433	3,780	10.1%
Excess supply/(demand)	(30)	6	(36)	40	—
LME spot rate (US$/tonne)	1,716	1,898	2,569	2,638	2.7%

Sources: The 2007 Year Book of Nonferrous Metals Industry of China

Demand for aluminium in the next 10 to 15 years will be significantly affected by the growth of the global economy and in particular the continued growth of the PRC economy.

According to Alcan Inc., if the compounded annual growth rate of the demand for aluminium in the next 15 years can be maintained at 3% (the growth rate of global economy between 2003 and 2007 stood at 4%), an additional production capacity of 16.5 million tonnes of aluminium will be required to satisfy market demand in the next 15 years. This is equivalent to the construction of two new electrolysed aluminium plants with production capacity of 0.5 million tonne per year to satisfy the additional demand.

Furthermore, according to Alcoa Inc., by 2020, global demand for primary aluminium is expected to increase to 60.6 million tonnes. By 2020, Asia will continue to be the primary consumer of global aluminium output. Aluminium consumption in Asia is expected to increase to 31.6 million tonnes in 2020 from 13.1 million tonnes in 2005. The North America will be the second largest aluminium consumption continent after Asia, and by 2020, aluminium consumption in the North America will increase to 11.6 million tonnes from 7.2 million tonnes in 2005. Aluminium consumption in the Western Europe is expected to grow to 10.8 million tonnes in 2020 from 6.7 million tonnes in 2005, while consumption in the Eastern Europe is expected to increase from 3.1 million tonnes in 2005 to 5 million tonnes in 2020. The compounded annual growth rate of global demand for primary aluminium in the next 10 to 15 years is estimated at 4.5% to 5.0%, in line with the expected growth of the global economy. The current consumption of magnesium in aluminium is approximately 0.5%, which is far from the normal ratio range of 1% to 3%. Even if the usage ratio is maintained at 0.5%, when the output of aluminium reaches 60 million tonnes by 2020, the demand for magnesium will still be 0.3 million tonne per year.

Moving into the 21st century, countries over the world have attached great importance to the usage of magnesium as a safe, environmental friendly and energy-saving material. The development and application of new technology in numerous types of products has also led to a drastic increase in magnesium usage. Accordingly, magnesium has become the third largest engineering metal after steel and aluminium. The research and development of new technology and magnesium alloys as a new material have been regarded as an important strategic decision in the new century by many developed countries including the U.S., Japan and Austria.

Due to the advantages of magnesium alloys over steel and, or aluminium alloys, it is expected that the application of magnesium alloys in automobiles, motorcycles, the electronic industry and other sectors will continue to grow in the years to come.

RECENT GLOBAL ECONOMIC CRISIS

Since September 2008, the governments in the U.S., Hong Kong and other major countries in the world have introduced various financial assistance programs and rescue packages for the banking and financial systems designed to prevent or ameliorate a global recession. The recent economic crisis is perceived to have arisen out of and developed from the sub-prime mortgage crisis in the U.S., which began in early 2007 and which has caused the failure of mortgage companies, investment firms, banks and government sponsored enterprises that invested heavily in investment products backed by sub-prime mortgages. Moreover, the economic crisis has adversely affected the availability of credit in global lending markets and has manifested itself in significant downturns in stock markets throughout the world. As of the Latest Practicable Date, indexes of major stock exchanges in North America, Europe and the Asia-Pacific region show significant falls from the beginning of the year. Whilst governments around the world continue to introduce stimulus packages, economists and market analysts believe that the possibility of a global recession is increasing. In keeping with anticipated global trends, it is expected that the Malaysian economy will also cool on the basis of a slowdown in economic activity.

In view of global economic developments, our Directors have been monitoring the macro-economic environment. The Directors note that magnesium is not produced on a large scale compared to other metals traded in the commodity markets and there are increasing applications of magnesium in various sectors using higher grade magnesium particularly the automotive industry. The growing awareness of environmental protection in the world also encourages the use of lightweight metals. According to an article issued by Metal Bulletin on 30th October, 2008, the U.S. automobile industry uses approximately 8.5 pounds of magnesium per vehicle while the European carmakers use approximately 11.2 pounds per vehicle. However, Asian carmakers use only about 3.3 pounds of magnesium per vehicle. There exists room for further growth in demand for magnesium from carmakers in Asia. As such, the Directors believe that the prospects of the magnesium industry remain positive. The views of the Directors on the future outlook of the industry and our business will be disclosed in our interim and annual reports to provide our Shareholders and potential investors with up-to-date information about the industry and our future business.